

8-8-2009

The best practices for retention and placement of Associate of Applied Science students at Mississippi public community and junior colleges

Janae Ferguson Hagan

Follow this and additional works at: <https://scholarsjunction.msstate.edu/td>

Recommended Citation

Hagan, Janae Ferguson, "The best practices for retention and placement of Associate of Applied Science students at Mississippi public community and junior colleges" (2009). *Theses and Dissertations*. 4273.
<https://scholarsjunction.msstate.edu/td/4273>

This Dissertation - Open Access is brought to you for free and open access by the Theses and Dissertations at Scholars Junction. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Scholars Junction. For more information, please contact scholcomm@msstate.libanswers.com.

THE BEST PRACTICES FOR RETENTION AND PLACEMENT OF ASSOCIATE OF
APPLIED SCIENCE STUDENTS AT MISSISSIPPI PUBLIC
COMMUNITY AND JUNIOR COLLEGES

By

Janae Ferguson Hagan

A Dissertation
Submitted to the Faculty of
Mississippi State University
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy
in Community College Leadership
in the Department of Leadership and Foundations

Mississippi State, Mississippi

August 2009

THE BEST PRACTICES FOR RETENTION AND PLACEMENT OF ASSOCIATE OF
APPLIED SCIENCE STUDENTS AT MISSISSIPPI PUBLIC
COMMUNITY AND JUNIOR COLLEGES

By

Janae Ferguson Hagan

Approved:

James E. Davis
Coordinator and Assistant Professor
Department of Leadership and
Foundations
(Major Professor)

William M. Wiseman
Professor and Director, John C.
Stennis Institute of Government
(Committee Member)

Wayne Stonecypher
Former Executive College Director
of State Board for Community Colleges
(Committee Member)

Charles Campbell
Professor of Finance and
Economics
(Committee Member)

Linda Coats
Associate Professor and Graduate
Coordinator Department of
Leadership and Foundations

Richard Blackburn
Dean of the College of Education

Name: Janae Ferguson Hagan

Date of Degree: August 5, 2009

Institution: Mississippi State University

Major Field: Community College Leadership

Major Professor: James Davis

Dissertation Chair: James Davis

Title of Study: THE BEST PRACTICES FOR RETENTION AND PLACEMENT OF
ASSOCIATE OF APPLIED SCIENCE STUDENTS AT MISSISSIPPI
PUBLIC COMMUNITY AND JUNIOR COLLEGES

Pages in Study: 90

Candidate for the Degree of Doctor of Philosophy

The economic welfare of a community vastly depends on the business and industry it can attract and retain. According to the Bureau of Labor Statistics (BLS), occupations in which workers often are required to have an associate degree are growing faster than occupations that require other types of training. As the demand for more technical and vocational graduates increases, it is important for the community and junior college to retain the students to graduation and place them in jobs in their community.

The purpose of this mixed methods research study was to determine the graduation totals and placement rates for Associate of Applied Science students from each community and junior college in Mississippi during the 2006-07 academic year. In addition, student demographic and education variables of graduates including age, gender, ethnicity, GPA, and ACT were obtained to determine their influences on

graduation totals. The practices for retaining the Associate of Applied Science students to graduation and placing them in jobs were also determined.

The findings of this study indicate the total placement rate relative to graduation totals for the 11 colleges that reported placement rate. The most prevalent demographic and education variables of retention included 63% of graduates in the 21-30 age range; 70% of the graduates were females, 66% were white, 36% were in the 3.0-3.49 GPA range, and 46% had a 16-20 ACT score.

The methods for retaining these students to graduation were identified as extracurricular activities, new student orientation, tutorial programs, career center access, work study programs, counseling services, and developmental classes. The methods for placing these students in jobs after graduation involved the instructors spending a lot of time working with their local businesses and industry along with operating craft committees that met regularly with local business leaders.

The results of this study indicate a high success rate for Mississippi community and junior colleges at retaining and placing students.

DEDICATION

This dissertation is dedicated to my loving family who has supported me through this endeavor: my husband Drew, daughter Juliana, parents Steve and Jill Ferguson, sisters Jody Clark and Jeanine Davis.

ACKNOWLEDGEMENTS

I want to first give credit to my Lord and Savior for the ability to complete such a task as this. I have also been blessed with a loving Christian family that has supported me. Drew, if it were not for you taking on more of my load at home, this would have definitely been more than overwhelming. My sweet daughter, Juliana, you are such a blessing to us. To my incredible parents, Steve and Jill Ferguson, thanks for instilling in me a belief in myself and a faith that I can do anything I set my mind to. I pray that I am half the parent you both have been to me. And to my two fun-loving sisters, Jody and Jeanine, thanks for reminding me to enjoy life! I appreciate your help with Juliana while I worked on this “paper.”

I also want to acknowledge my committee that gave me support and encouragement during this process: Dr. Ed Davis, Dr. Marty Wiseman, Dr. Charles Campbell, and Dr. Wayne Stonecypher. I appreciate your sharing your knowledge and advice in each of your classes and while writing this dissertation. You are all incredible educators that I greatly admire!

TABLE OF CONTENTS

DEDICATION	ii
ACKNOWLEDGEMENTS	iii
LIST OF TABLES	vii
CHAPTER	
I. INTRODUCTION	1
Need for the Study	7
Purpose of the Study	9
Statement of the Problem.....	10
Research Questions	11
Limitations and Delimitations of the Study	11
Definition of Terms.....	12
II. REVIEW OF RELATED LITERATURE	15
Introduction.....	15
The Rural Community College	16
The Community College Student.....	19
The Associate of Applied Science Degree.....	22
Retention and Placement.....	23
Retention Theory	24
Cost and Benefits	25
Human Capital	26
Net Pricing	27
Student Financial Aid	29
Demographic Differences	30
III. METHODOLOGY	34
Data Sources	36
Description of Instrument	37
Data Collection	38
Data Analysis	40

IV. ANALYSES OF DATA	42
Method Reviewed	43
Research Question One	44
Research Question Two	46
Age	46
Gender	48
Ethnicity	49
GPA	49
ACT scores	52
Research Question Three	52
Research Question Four	62
Research Question Five	64
V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS.....	67
Summary	67
Conclusion	69
Recommendations	73
REFERENCES	75
APPENDIX	
A INSTITUTIONAL REVIEW BOARD APPROVAL LETTER.....	80
B SBCJC PERMISSION LETTER	82
C DR. SCAGGS PERMISSION LETTER	84
D INITIAL CONTACT LETTER	86
E INSTRUMENT	88

LIST OF TABLES

4.1 Total Number of A.A.S. Graduates for Mississippi Community and Junior Colleges.....	45
4.2 Descriptive Statistics by Age of A.A.S. graduates	47
4.3 Descriptive Statistics of Graduates based on Gender	48
4.4 Descriptive Statistics of Graduates based on Ethnicity	50
4.5 Descriptive Statistics of Graduates based on GPA	51
4.6 Descriptive Statistics of ACT scores for A.A.S. Graduates	53
4.7 Percentage of A.A.S. Graduates Placed in a Job	54
4.8 Number of Administrators/Participants and Response to Questionnaire	56
4.9 Job Title of Respondents	57
4.10 Level of Awareness of College's Retention and Placement for A.A.S. students	58
4.11 Retention and Placement a Matter of Concern at the Institutions	58
4.12 Institutional Opportunities for Students	60
4.13 Ample Access to Extracurricular Activities	61
4.14 Importance of Placing A.A.S. Students in Their Field of Study	61
4.15 Amount of Time the A.A.S. Instructors Spend Helping Graduates Find a Job	62

CHAPTER I

INTRODUCTION

In order for Mississippi to compete in the global economy, the state must prepare workers to meet the employment demands of the workplace. Community colleges are vital to the future of America and are linked to the success of the communities in which they serve. Vaughn (2000) wrote that one of the community colleges' missions is to provide services that lead to stronger, more vital communities (Vaughn, 2000, p. 3). In an attempt to fulfill their mission and give Mississippi an opportunity to compete globally, the community colleges in the state offer programs that are unique to their service area and communities (Ford, 2002).

The Bureau of Labor Statistics predicts that between 2002 and 2012, there will be 56 million job openings that will need to be filled. About 42 million of those jobs are not expected to require a bachelor's degree and will be filled by employees who are starting work for the first time. Of those 42 million, 15 million will be expected to be filled by individuals who have some college education or an associate degree (Moncarz & Crosby, 2005). D'Amico, Judy, and Gipel (1997) project that there will be an increasing need for skilled workers that can perform in the new technology arena. The most valued employees will be the individuals who are educated and able to meet the requirements of the changing labor force (D'Amico, Judy, & Gipel). According to Coronado (1996) the Associate of Applied Science degree has proven itself to be a beneficial degree that helps

develop a local workforce (Coronado). These statistics and projections suggest that there is a need for the community college to retain and place students in the projected gaps that will need to be filled in their communities.

Moncarz and Crosby (2005) mention that there are two contributing factors that lead to job openings. One factor is that in large companies there is a significant amount of turnover. The problem of having employees leave the workplace can be accounted for by many different factors, but in today's business society it is often due to retirement. The current wave in retirement is due to the baby boomers reaching the ripe age for leaving their jobs after many years of investment in their areas of work. Another factor that leads to job openings is job growth. Based on the location of the business and its local needs, some jobs have more growth than others.

The programs that are offered at the community colleges are designed for students to earn an A.A.S. degree in a particular vocational or technical field. This is a terminal degree that allows the student to begin work in as little as two years after attending a community college. The programs that are offered at each community college in Mississippi vary depending on the specific needs of their own individual community (Cohen & Brawer, 2003). The community college stays in close contact with the local business area to determine what jobs and certifications it should offer to students.

Moncarz and Crosby (2005) found that many of the projected jobs between 2002 and 2012 will be high paying occupations. Many individuals are realizing the need for earning more money for their families, and they seek their local community college to help them. After learning of their options, many determine that the benefits should outweigh the cost of earning an A.A.S. degree. The community college offers an

economically friendly education when compared to four-year institutions of higher learning (Cohen & Brawer, 2003).

The decision to earn an A.A.S. degree is a win-win situation for the student and his community (Tinto, 2004). Morse (2004) argues in her book *Smart Communities*, that the best investment in human capital is education. One benefit possibly of most importance is knowing that the improvement in human capital of the individuals who are retained is improving (Tinto, 2004). Tinto found that people with college degrees are much more likely to participate effectively in governance of the nation, earn more money for their family, contribute their time and money to community service, consume fewer public services, and commit fewer crimes.

State and national studies show that postsecondary education leads to better employability and higher wages. A ten-year study involving displaced workers showed that the ones who had at least one year of community college technical education could expect to earn 14% more for men and 39% more for women than the ones without any postsecondary education (Jacobson, 2002). According to the Bureau of Labor Statistics, workers with an associate degree earned an average of \$128.00 more a week in 2001, and their unemployment rate was 30% lower when compared to high school graduates (Crosby, 2002).

The community college offers several options for students after they complete high school or earn their General Equivalency Diploma (GED). As originally planned, it was expected that students complete two years of college, then transfer to a university. These students often completed the course work to earn an Associate of Arts (A.A.) or an Associate of Science (A.S.) degree. These degrees require 41 hours of general education

coursework and 23 hours in their area of career interest. Another option for students who do not plan to pursue further education past the two year mark is an Associate of Applied Science (A.A.S.) degree. This degree requires 25% of total program hours to be in general education coursework and the remaining hours of coursework from their chosen career field. This allows the students to focus on their selected field as a sequence of classes tied directly to their area of specialty. Many of these courses are practical in nature, and many of the classes give hands on learning experiences for the student (Witt, Wattenbarger, Gollattscheck, & Supiger, 1995). (Witt, 1995)The size of these classes is often smaller and allows more individualized time between the instructor and student.

The A.A.S. degree, designed as a terminal degree, allows students to complete a degree in two years and begin work (Cohen & Brawer, 2003). However, some students choose to pursue a four-year degree. The difference is that the A.A.S. degree student must complete additional general education courses required by the articulating institution. In Mississippi, the technical and vocational degrees that are offered by the institutions vary from one community college to another because each geographical area has different needs. The programs that are offered at each community college in Mississippi are specific to the demand in each geographical region. These two-year programs are integrated and continued based on need from the local business and industry in each area. Many consider the A.A.S. degree to be an integral part of a local workforce (Coronado, 1996).

The community college system has invested numerous resources in recruiting students to their institutions, practices which have proved successful over the years. Nearly half of all college freshmen who attend an institution of higher education enroll in

a community college. The enrollment continues to increase at the community colleges each year (Vaughn, 2000). Once the student enrolls at the local community college, the institution makes an effort to retain him or her.

Student retention and placement have been important issues for community colleges since their inception over 100 years ago. A high level of retention and placement of these students is of concern for these institutions, as attrition shows that almost half of enrolled students fail to complete or succeed in their course of study. For more than 30 years, numerous efforts have been made to improve student retention on college campuses, and many colleges go to great lengths to retain the students that enroll at their institutions. Retention is important to colleges for a varied number of reasons. The rural community colleges of Mississippi currently face increased pressure to perform well considering the current need for increase in funding. Significant indicators for success are retention and placement. Bailey et al. (2005) note that, as competition for public funding intensifies, and community colleges are forced to compete with other educational institutions, community colleges will increasingly need to document and report their outcomes and the returns on the public's investment (Bailey et al.).

Bailey et. al. (2004) found that a college's retention record affects its popularity in rankings in such publications as *U.S. News and World Reports*. These rankings are reflections of the increasing interest in measures of the quality of higher education. Completion of a degree or certificate is the most common and direct measure of community college student attainment (Bailey et. al. 2005). These authors also found that to receive federal financial aid according to the Higher Education Amendments of 1998, colleges are required to report graduation rates.

Cohen and Brawer (1993) also agreed that the study of retention is important for a college because it can influence its ranking in college guides and possibly, most important, it affects its funding. From a governance perspective, retention and placement are important to consider. A community college's funding source is primarily a governmental issue. According to Vaughn (2000) the national breakdown of revenue sources is as follows: 39% state, 20% tuition and fees, 18% local, 13% federal, 10% other.

The community colleges are competing against other school institutions for state funded money. According to Gilbert (personal communication, September 24, 2005) of the Mississippi State Board of Community and Junior Colleges, the following is the breakdown of the 2006 general fund:

77.4% (K-12) Kindergarten - 12th grade

17.8% (IHL) Institutions of Higher Learning

4.8% (CJC) Community and Junior Colleges

The Community and Junior Colleges have long lagged behind the other publicly funded institutions of education in funding. The 2007 legislative session brought better news for the Community and Junior Colleges as the push for midlevel funding is being implemented. As the community colleges ask for appropriate funds, they must justify that they are doing everything they can to retain and place the students in which they invest the state's dollars.

Another justification for the examination of community college retention rates is that the institution's reputation somewhat depends on its ability to retain a significant number of its students as proof of program success. The fact that the Student Right-To-

Know and Campus Security Act signed on November 8, 1990, requiring colleges to disclose their graduation rates in order for prospective students to make a more informed decision regarding the suitability of the institution, enabled the researcher to conduct the study (Hagerdorn, 2007).

After completion of the A.A.S. degree, positive placement for graduates is another important concern. For most students, their goal after graduation is to be employed in their related field. The community college serves its students and community by helping place the student in a work environment related to his field of study. The community college's responsibility is to work closely with the local industry to know specifically what jobs are in demand so that the college can offer the appropriate training and education to meet the needs of their community (Crosby, 2002).

Community colleges are held to a higher standard due to the passing of the Perkins Act in 1984. The Act was amended in 1990 and 1998 to provide even more educational opportunities for American's workforce (Hull & Grevelle, 1998). A.A.S. degrees have been a significant focus of the Perkins legislation since their origin (Lynch, 2000). The 15 community colleges in Mississippi are required to report their retention and placement rates for their technical and vocational students annually. These reports give evidence that the federal and state money is being spent in an appropriate manner.

Need for the Study

According to the Bureau of Labor Statistics (BLS), occupations in which workers often are required to have an associate degree are growing faster than occupations that require other types of training (Moncarz & Crosby, 2005). As the demand for more

technical and vocational graduates increases, it is important for the community college to retain the students that enroll in these programs. Although there is a substantial amount of information available about the retention of students at a community college, there is very little information that specifically addresses A.A.S. students within their programs of study. Student retention has been studied for decades to determine how more students can be encouraged to complete their programs. There are numerous theories and discussions on the importance of retention and the factors that seem to have an impact on it, but little research has been conducted on the specific strategies that each community college in Mississippi has implemented to retain its A.A.S. students. The community college is responsible for placing its program graduates in a job that is related to their field of study.

This study focused on student retention and placement at rural Mississippi Community Colleges for students in A.A.S. programs. This study benefits all community colleges in Mississippi by allowing them to know strategies that are in place at the other community colleges around the state to help with student retention and placement. They have a chance to determine what has worked for other community colleges and share those ideas. The community colleges can work to meet each student's needs and retain him or her.

The United States is now competing in a global economy, and the community college has a need to prepare a workforce with the skills that are needed to compete globally (Friedman, 2005). By studying retention and placement, these two factors allow the community college to prove their success. The educated, skilled employee is needed in all communities in Mississippi. It should be determined whether the community colleges are doing everything they can to prepare students to fill the gaps.

Purpose of the Study

The economic welfare of a community vastly depends on the business and industry it can attract and retain (Flora, Flora, & Fey, 2004). The availability of educated workers is often the founding and continuous determining factor as to whether the community will prosper. In order for the community college to fulfill one of its missions of serving the community, it must know what positions are needed in their local area (Cohen & Brawer, 2003). As more employees are retiring and the Bureau of Labor Statistics predicts growth in technical and vocational jobs that require an associate degree, the community college is in an ideal situation to educate and place more students.

Educators are also being held to a higher standard of accountability with concerns for retention and placement due to the Perkins Act (Azari, 1996). The Carl D. Perkins Vocational Educational Act was passed by Congress to help increase the number of highly skilled workers due to a shortage. Educators must report their retention and placement rates to ensure that the federal money they have been given as a result of the Perkins Act is used in the appropriate way (Wilcox, 1991).

The primary purpose of this study was to identify retention strategies that are in place to aid A.A.S. students to graduation and place them in a job. This research examined the number of A.A.S. students that are retained to graduation at each of the 15 community and junior colleges in Mississippi and by comparison show the number of them that are positively placed in their program areas. The efforts that each community college took to ensure that these students graduated and were placed in a job are identified.

The cost and benefits of earning an A.A.S. degree was also researched and the human capital of these individuals was examined. The findings of this study should enlighten students enrolled at each community college in Mississippi, and prospective students, about the cost and benefits of staying in an A.A.S. program and the possibility of being placed after graduation. For most students, it should be clear that the benefit should outweigh the cost, therefore implying that they need to complete the Associates Degree. This information is beneficial to these community colleges to give them another tactic about how to retain and help guide their students to graduation.

Statement of the Problem

The availability of qualified individuals with technical and vocational skills is declining while the need for quality labor increases. For the state of Mississippi to prosper, it must acquire a ready supply of skilled workers. A number of businesses are in need of highly skilled workers with positions that require an associate degree. These positions are some of the fastest growing nationally. As the current trends are proving, a two year degree is of demand in most communities. Now more than ever, more jobs are requiring at least a two-year degree which can be completed at a local community college. As individuals become aware of their options for a shorter education and a valuable investment in a secure job, there is a need to know how likely these students will be placed in their chosen field.

The community colleges spend tireless amounts of time to work with each student and the industries in their area to place each of their A.A.S. graduates. There is needed research on the community college level to investigate plans of action for retention and

placement of A.A.S. students. Considering the need for more technical and vocational employees, it is important for the community colleges in Mississippi to retain, graduate, and place as many students as possible. Understanding the importance of educated employees in Mississippi is of critical importance to the economic welfare of the entire state and its communities.

Research Questions

The following research questions guided the research efforts addressed in this study:

Question 1: What is the total number of Associate of Applied Science graduates at Mississippi Community Colleges?

Question 2: What are the various demographic and education variables that influence graduation rates for Associate of Applied Science students in Mississippi community and junior college?

Question 3: What are the placement rates of the Associate of Applied Science programs at Mississippi Community Colleges?

Question 4: What are the retention methods in Associate of Applied Science programs in Mississippi Community Colleges?

Question 5: What are the placement methods for Associate of Applied Science students in Mississippi Community Colleges?

Limitations and Delimitations of the Study

The researcher acknowledges the following limitations and delimitations of this study:

1. The study focused on two-year community and junior colleges in Mississippi.
2. The study focused on students enrolled in these fifteen two-year community and junior colleges for the 2006-07 school year.
3. This study focused particularly on students who completed an Associate of Applied Science Degree during the 2006-07 school year.

The population involved in this study from which the data will be gathered may not be comparable to other community colleges in other states or other time periods in Mississippi. Conclusions drawn from this study address issues in Mississippi and should not be generalized to other community colleges outside Mississippi.

Definition of Terms

Human Capital- Gary Becker, most known for his studies involving human capital defines human capital as any asset that yields income and other useful outputs over long periods of time. He regards expenditures on education as investments in human capital and believes education and training is the most important investment in human capital (Becker, 1993).

Community College- The term community college is defined as “any institution regionally accredited to award the associate in arts or the associate in science as its highest degree”; furthermore, that definition includes the “comprehensive two-year, college as well as many technical institutes, both public and private” (Cohen & Brawer, 2003, p.5).

Traditional Student- A *traditional student* is known for recently graduating high school and under the age of 23. This student often receives financial assistance from his parents and does not have any pressing responsibilities outside of his class work.

Nontraditional Student- There have been inconsistent definitions for nontraditional students in the research. Most findings report that a nontraditional student is a student that is older than the typical college aged student of 22. Another definition is a student who is enrolled in classes that are not offered at the typical times. Such a student may take classes at night, online or on the weekends. For the purpose of this research, the nontraditional student of interest is the one that is older than 22 years of age and may have a job, family, and other responsibilities in addition to earning his degree.

Associate of Applied Science degree (A.A.S.)- A student must complete a minimum of 63 semester hours with an overall grade point average of 2.0. Candidates for this degree must complete 18 semester credit hours of general education core courses as a part of their program of study and the remaining 45 hours of coursework is in their chosen career.

Associate of Arts (A.A.) or Associate of Science (A.S.)- A student must complete a minimum of 63 semester hours with an overall grade point average of 2.0. These degrees require 41 hours of general education coursework and 23 hours in their area of career interest.

Graduates- A student that earns an A.A.S. degree at a Mississippi community college after completing a minimum of 63 semester hours in a particular program.

Positive Placement- Based on the placement summary that is reported by each community college in Mississippi, once a student graduates with his A.A.S. degree, he

will be considered positively placed if he continues his education, is employed in his field, employed in a related field, or is in the military.

Negative Placement- Based on the placement summary that is reported by each community college in Mississippi, once a student graduates with his A.A.S. degree, he will be considered negatively placed if he works in an area that is not related to his field, he is not employed, or he falls into the category of other.

Retention- The Center for the Study of College Student Retention distinguishes between different types of retention. Of concern for this paper, *program retention* is defined as tracking the students in a degree program for three years to determine whether they have completed the degree program (Community College Terms, n.d.).

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

Chapter two is a review of the literature that reflects on the issues of retention and placement for students who earn an A.A.S. degree at Mississippi community and junior colleges. The literature reveals that a great deal of research has been completed on the retention of students in many aspects of higher education; however, very little research focuses solely on students who are pursuing an A.A.S. degree at the community college.

Recent studies have projected growth in vocational and technical areas that can be filled with A.A.S. degrees from community colleges. As the baby boomers reach retirement, there are many openings created in the workplace. More individuals are realizing the need for an education in today's society, and many turn to the community college for help. The community college can meet their needs by providing them with a two year program that will give them appropriate, up-to-date training, and allow them to enter the workforce in a reasonable amount of time.

The community college has a responsibility to try to retain the student until graduation and then to successfully place him in an area of work related to his field of study. This is a win-win situation as the community college serves the community, as well as improving the human capital of the individual.

The Rural Community College

Mississippi community and junior colleges wear many hats, and they do an excellent job at what they do. They have proved themselves over the years to be everything to everyone (Cohen & Brawer, 2003; Vaughn, 2000). The services that each community college provides depend heavily on the needs of the community in which the college is located. According to Vaughn (2000), these colleges work toward their goal of offering:

1. Open Access
2. Lifelong Learning
3. Community Service
4. Comprehensive Education
5. Teaching and Learning

The Mississippi community and junior college system began in 1922 as a public junior college system. Mississippi is home to 15 community and junior colleges. They include:

Coahoma Community College

Copiah-Lincoln Community College

East Central Community College

East Mississippi Community College

Hinds Community College

Holmes Community College

Itawamba Community College

Jones Junior College

Meridian Community College

Mississippi Delta Community College

Mississippi Gulf Coast Community College

Northeast Mississippi Community College

Northwest Mississippi Community College

Pearl River Community College

Southwest Mississippi Community College

During the one hundred plus years since their inception, the two-year college's designation has changed from "two-year college" to "junior college" to "community college." Some community colleges originated from agricultural high schools and were once considered to be grades 13 and 14. Other community colleges were created to provide two years of pre-university education for high school graduates, thus allowing the universities to focus on upper level and graduate course work (Koos, 1970). More recently, the community and junior colleges offerings include both two years of pre-university course work, and vocational and technical training. The community colleges in Mississippi are strategically placed in rural areas to specially serve the needs of the residents of these rural communities (Young & Ewing, 1978).

As an education/training option to prepare students to meet the needs of the local workforce, the community colleges developed and continue to offer a two-year terminal degree that includes fewer credit hours in academic subjects and more credits, hours in training, and hands-on experience in the intended career field (Cohen & Brawer, 2003). As an alternative to the four year degree, a terminal degree was created for students who chose a path in industrial training, technology, agriculture, or other vocational areas

(Witt, 1995). This option for students allows the community college to better serve the needs in the local workforce. It is common practice now that local community colleges are a service provider for such needed jobs (Koltai, 1984). The term “community” college came about because of the relationship the college established with the local businesses and industries to educate their students based on the wants and needs shown in the area (Rojewski, 2002).

According to the American Association of Community Colleges (AACC), there are 1,166 community colleges in the United States. Many of these two-year colleges, as they are often still called, began in the 1950’s, and they steadily multiplied for the next 20 years. Designed to help their community, most of these colleges offer the Associate of Arts (A.A.), Associate in Science (A.S.), Associate in Applied Science (A.A.), certificate, and non-credit training (Rojewski, 2002).

Community Colleges pride themselves in offering an open door policy which does not require a long waiting period, if any, for acceptance. This policy initially seemed to be a positive advancement for the community and junior colleges but the college has found that this causes a more serious problem with attrition (Wetzel, O'Toole, & Peterson, 1999). The literature suggests that community/junior college students are four times more likely to drop out for nonacademic reasons than for academic reasons (Levitz & Noel, 1980). Student attrition cannot always be considered negative for the college because many incidences are beyond the college’s control (Zwerling, 1980).

The Community College Student

From the programs the institution offers to the students it serves, nothing seems to be the same at community colleges across America. Cohen and Brawer (1993) may have put it best by saying “two words sum up the students: number and variety.” There has been an increase in the number of students who are being served, and the variety of students served has increased as well. The traditional white, male, high school graduate, resident student is no longer the norm (Martens, Lara, Cordova, & Harris, 1995). A study conducted by Windham and others (1996) discovered the variety of students that are actually attending college now. Enrollment increases now include more minority students, disabled students, students needing at least one remedial course, financial aid recipients, first-generation students, non traditional students and formerly incarcerated students. These diverse student bodies often have one thing in common: a financial need for assistance to meet the pay for college. Regardless of which college or school they choose, many face the increasing high costs of tuition, books, supplies, transportation, and daily living expenses while they are in school. Another concern for these students is opportunity cost. The income they must forgo by not working in order to attend class can influence their decision to even enroll. However, most of them are aware that this loss is temporary and is outweighed by the benefits of attending college (Windham).

Many students enrolled in an A.A.S. program are considered nontraditional students and do not fit the typical college student mold. The variety includes more females attending than ever before, along with more minorities in higher education than previously seen. Also, older, nontraditional students have begun attending in larger amounts (Martens et. al., 1995). Their schedules also vary, with more part-time students

than in the past. They are able to take classes at night, on weekends, and/or online which allows flexibility with their work schedule (Cohen & Brawer, 2003). According to Martens et. al., only 43% of America's higher education students are considered traditional, which are students under twenty-five who attend full-time. The new majority are older students and students that attend part-time. According to Vaughn (2000), there are students from all walks of life. He describes the community college student best by telling an observer to stand on a street corner in any town and watch the people that pass by. Take away those under 18 and most over 50, and a detailed idea of who is attending the nation's community colleges emerges. The once "traditional college student" who was straight out of high school, living on campus, taking a full load, dependent on mom and/or dad, and intending on transferring to a university has quickly changed (Vaughn, 2000).

Many individuals are returning or attending for the first time due to certain job changes. Some students attend to complete specific courses, to achieve a degree, or to acquire a job certificate (Ortman, 1995). Most of them have realized the need for additional education to support their families and keep up with changes in the economy and the world of work. There has been an influx in job terminations in the corporate world, and these individuals seek the help of the community college to give them new opportunities. Half of all students attending college attend a community/junior college and this popularity continues to grow. Students benefit from a community college by being able to earn a degree in about two years and then transferring to a senior college, by entering the job market, by being promoted or transferred to a better job, or simply by learning for their own purposes (Cohen & Brawer, 2003).

According to Windham and others (1996) community colleges now serve students from a variety of backgrounds including academic, economic, and social. This difference is mostly attributed to the community college's open door policy which allows anyone with a high school diploma or equivalent to enroll. The open door policy includes: ease of entry, little advance commitment, enrolling without completing a plan of study, part-time which is not discouraged, and ease of dropping and reenrolling (Cohen & Brawer, 2003).

Another important consideration is the students who commute. This is an issue for colleges because many more students are commuting than ever before, especially A.A.S. students. In *Commuting Versus Resident Students*, the first book to focus on commuter students and their experiences, Chickering (1974) concluded that "resident students are the haves and the commuters, the have nots" (p. 49) in higher education. According to Jacoby (1992), on average twenty percent of college students actually reside on campus, which leaves the other eighty percent commuting. This situation is predicted to only increase as time passes (Ortman, 1995). Commuter students are defined as students who do not live in housing owned by the institution. Commuting students make up the largest, most complex and diverse group of students to ever attend higher education (Jacoby, 1992). A commuter student brings more than just his job or older age to the campus. According to Jacoby (1992), a majority of commuter students have demanding responsibilities at home and multiple life roles. Many are married or single parents and have dependents that they care for. They are also often employed. These responsibilities often take priority over their school demands. Vaughn (2000) referred to these individuals as citizen-students. He describes them as being citizens and the responsibilities they have in their personal lives as their first priority, and their

responsibilities as students as their second priority. If their first priority takes away from their responsibility as a student, they will not be able to continue attending school to achieve their goal of an education.

Very little data have been collected to identify and determine specific details about A.A.S. student. Some general conclusions can be made based on related studies. Due to the many responsibilities these students carry, it often takes the average student longer than two years to complete the A.A.S. degree. According to a 2002 study, it took an average of over four years for students to obtain their associates degree, and there were no significant differences between males and females or from different ethnics groups (Gao, 2002).

The Associate of Applied Science Degree

The Associate of Applied Science degree was designed to bridge the gap between technical training schools and the university's baccalaureate degree (Koltai, 1984). This degree attracts students that desire a job related education. The A.A.S. degree trains students to enter the workforce in as little as two years. This degree is different from the A.A. and A.S. degrees in that it is terminal, and after graduation, the student can begin work in his field. The A.A. and A.S. degree are considered the first two years of a four year degree (Cohen & Brawer, 2003). However, some students decide to attend a senior institution after completing their A.A.S. degree. The A.A.S. degree was designed to give students a firm foundation in one career field along with emphasis in math, reading, composition, social science, and behavioral science (Crosby, 2002). The requirements of an A.A.S. vary depending on the state and regional standards. There has not been a

significant amount of data collected to identify and determine specific details about A.A.S. students. Some general conclusions can be made based on related studies.

Each community college offers different A.A.S. programs that are special to the needs in their individual areas. The communities in which they serve dictate a need for the programs the community and junior college should offer. A list of A.A.S. programs that are offered at each of the Mississippi Community Colleges is given in Appendix E.

Retention and Placement

The rural community and junior colleges of Mississippi currently face increased pressure to perform well considering the current increase in funding. The community and junior colleges are asked to prove that they are wisely investing the resources they are being given. Two significant indicators of success are the retention and placement of their A.A.S. students. Bailey et al. (2005) note that as competition for public funding intensifies, and community colleges are forced to compete with other educational institutions, community colleges will increasingly need to measure and document their performance and the returns on the public's investment (Bailey et al., 2005).

Also, there is the responsibility to report each program's retention and placement statistics for the Perkins Act. To help fight the shortage of highly skilled workers, the Carl D. Perkins Vocational Education Act or Perkins I was passed by Congress in 1984 (Buzzell, 1990). The new Carl Perkins legislation, which is now referred to as Perkins III, was passed and signed into law on October 21, 1998. This act originated to offer educational opportunities and financial assistance for many individuals and to encourage students to pursue vocational careers (Lynch, 2000). This is the primary source for

federal support to states for the improvement of vocational and technical education programs. Congress made accountability for results a central focus of the new Perkins III which forced new performance accountability requirements for states and local programs (American Vocational Association, 1990).

Positive placement is determined by considering whether the student is continuing his education, employed in the field, employed in related field or has joined the military. Each community and junior college in Mississippi is required to report a yearly summary on each of its career technical and vocational programs. This summary is divided into Applied Science and Technology and Health Science. The report that is submitted to the Mississippi State Department of Education includes the number who have completed each program, the numbers of students positively placed in each program, and numbers of students negatively placed in each program. A student was considered negatively placed if they were not placed in a job related to their degree, not employed, or if they were unable to be contacted.

Retention Theory

The literature proposed a variety of retention theories, but the most often cited model is that of Tinto (1993), who introduced the importance of student integration, both socially and academically, in the prediction of student retention. Tinto suggested that retention is related to the student's ability and attempts to become an involved citizen in their institution. This model suggested a match between the student's commitment and the institutional environment. A good match allows the student to become incorporated in

the academic and social domains of college life and in turn increase their probability of persistence.

Cost and Benefits

The cost of attending college has been widely documented and varies from state to state and from institution to institution. The matter of meeting the costs to attend college can influence a student's retention. The cost of earning an A.A.S. degree should be considered along with the benefits of earning an A.A.S. degree. The cost of attending is influenced by a variety of factors. The mean cost of attending a Mississippi community and junior college during the 2006-2007 school year was \$856.00 per semester for a full time student. This cost does not include room and board, books and supplies, or any other outside expense (MBCJC, 2007). The national mean cost of attending a two-year public institution during the 2005-06 school year was \$5,492 which included tuition, fees, room, and board for full time students (Statistics, 2007b).

One must consider whether the cost outweighs the benefits. The benefits of attending a community college and earning a two year degree or transferring onto a senior institution have been documented. Completing a degree is often rewarded with higher annual and lifetime earnings (U.S. Department of Education, 2005). The median annual income in 2004 for having earned an associate's degree was \$44,404 for men and \$33,481 for women. This is an increase from a high school diploma or its equivalent: \$35,725 for men and \$26,029 for women.

Weighing the cost and benefits of attending college is the core of an economic perspective on college student retention. It is arguable that much of the student departure

results from a student's perception that the costs of attending a particular college exceeds the benefits of attending that college (Braxton, 2003).

Numerous reports show the differences in average earning between college and high school graduates in the United States. The premium on getting a college education beyond a high school education has risen 65% in the last fifty years (Becker, 1993). According to the U.S. Census Bureau, the average household income increases by \$14,354 when the householder is a high school graduate and rises \$37,874 when the householder earns an associate's degree then a bachelor's degree. The increase in income is most often found to be beneficial even after considering the net direct and indirect costs of schooling (Becker, 1993).

Human Capital

The Human Capital theory suggests that personal investments in education, training, or other learning opportunities can bring returns on the individual's investment of time, money, and energy. Most notable for his contribution to economics and education, Becker (1993) discusses the investment education has on an individual. At first glance, schooling may not be considered capital, but it is because it raises earnings, improves health, and adds to a person's good habits over much of his lifetime.

Economists regard expenditures on education as investments in human capital. Education and training are the most important investments in human capital (Becker). The national effect of placement on human capital has been documented. If an individual were to remain in his/her chosen field for 30 years and were to be employed for all of that time, a projected life-time increase in earnings would be over \$192,000 (Vanderheyden, 1994).

The consequences of enrollment without completion can also effect human capital in a positive way (Tinto, 2004). Tinto suggested that a student's human capital will improve just by attending the community college, whether he earns a degree or not. While most students' goal is to earn a degree, some students may only attend to enroll in one class or to receive a certificate.

Net Pricing

Community Colleges pride themselves on being affordable for all students. The theory of net price as it applies to student demand for higher education has become an issue for administrators and policy makers. Studies have found conflicting issues for net pricing. A growing body of research suggests that students respond to a single net price. The economic theory on higher education holds that students are affected when the price to attend college increases or decreases (Leslie & Brinkman, 1988; McPherson & Morton, 1991). St. John (1990) found that students respond to both prices and price subsidies in their first-time enrollment and persistence decisions. However, in contrast, another study concluded that enrollments do not fluctuate with changes in net price. Wetzel, O'Toole, and Peterson (1999) determined that even though an individual's financial status reflects a number of factors, it is relatively less important to student retention than academic success. This study also concluded that student loans and work-study programs have no statistically significance influence on attendance either (Wetzel, et al., 1999).

The concept of net price is rooted in human capital theory, which is fundamental to most finance strategies in higher education. In *Human Capital Theory*, Becker (1993)

argued: “Generally, the most important cause of differences in opportunities to attend postsecondary education is the availability of funds” (p. 121). Becker also discussed the importance of scholarships and loans which serve as funds for accessibility. He validates that students respond to a single net price and that reductions in net price for some populations, can improve access which are embedded in the original concept of human capital theory (Becker). Becker also discussed that lower income students were more price sensitive to tuition than higher income students (Leslie & Brinkman, 1988).

Academic and social integration factors are continually found to be the most significant factors in persistence. However, it’s understood that many students are continually affected by the financial burden (Wetzel, et al., 1999). One must determine the price of attending college. The first factor to consider is the opportunity cost of the income forgone while attending college. This component varies among students based on their work experience and job-related skills that they possess. Another important issue included in price is the out-of-pocket expenses incurred by the student. Included are such items as tuition and fees, books, and other expenses not included in the normal living pattern of an individual who is not attending college. Such expenses can be off set by the avenue of financial aid.

Student Financial Aid

Individuals in today's society have realized the need for an education. Through investigating the benefits of an education, many have discovered the community college. The community college is being used to meet the needs of many individuals in the community, which fulfills one of the community college's main goals according to Cohen and Brawer (2003). While community colleges are known for their affordability, millions of students in America still cannot afford to attend without outside sources of financial support. This opportunity to earn a degree has been made possible for a many students by the Department of Education by offering a variety of financial aid programs.

Legislation has made financial aid possible for many students. A few of these historical milestones include the Morrill Act of 1862 which encouraged states to establish public universities by providing Federal land and financial support; and in 1944 government funding of higher education began with the passage of the Serviceman's Readjustment Act or G.I. Bill. This was the beginning of offering students money to go to college (Vaughn, 2000). Federal student aid has increased significantly along with changes in distribution practices since the 1970's. Econometric findings support the claim that financial assistance influences enrollment behavior (McPherson & Morton, 1991).

The purpose of financial aid is to give financially needy students greater access to college. Financial aid then gives them a better opportunity to finish college (Froomkin, 1983). Federal student aid is offered in different forms including: grants, work-study, and loans. Each of these programs is different; grants are not paid back and are awarded to financially needy undergraduate students, work-study allows students to earn money for their education while working for the college, and loans allow students to borrow money

for school. These programs offer different opportunities to students who all have different needs. Every student's financial need is different; therefore, the federal aid programs attempt to find the best fit for each student. Studies show that students are affected differently by each type of aid (Federal Student Aid Handbook, 2002).

Demographic Differences

Low income and minority students who receive grants are usually more likely to stay enrolled and complete their programs than those who receive loans. For many low income and minority students, enrollment and persistence decisions are driven by the availability of financial aid. However, a conflicting conclusion from a study may be of surprise to many educators and economist. Hansen (1983) concluded that when more financial aid was available for below median income families, few took advantage of access to college. These results do not indicate what the expected outcome would expect to be. Hansen's highly momentous study suggested that it is helpful to look at relative enrollment rates of all social classes to determine the extent to which federal student aid influences college attendance. Another significant study in 1999-2000, indicates that 77% of financially dependent students from families with less than \$20,000 in family income received some financial aid, with an average award of \$6,727. In contrast, 44% from families with income of \$100,000 or more received aid with an average award of \$7,838 ("Retention 101- Why Students Leave," 2007).

Perkins, Pitter, Howat, & Whitfield, (1999) in his studies discovered the student that is most likely to be receiving financial aid. The group with the highest percent of students receiving some form of financial aid was 18-24 year old freshman, which

accounted for 71%. However, they were also the group with the lowest mean (\$2,373) and median (\$1,984) amounts of aid. As the age of the groups increases, the recipients of financial aid decreased, but the total amount of aid received increased to \$3,054. Overall, the highest percent of students receiving aid was the 18 year olds; 92% of them received financial aid. When gender and ethnicity were considered, white females were more likely to receive aid, counting for 35% of all awards. The lowest number of students receiving financial aid was Hispanic males, which accounted for only 6% of all awards. Then, looking at which race and gender received any form of financial aid, black females had the highest percentage receiving 82%, and Hispanic males had the lowest percent of 55. Therefore, it can be said, 82% of black females received financial aid, and 55% of Hispanic males receive financial aid. Between males and females, 64% of females receive financial aid and, 59% of males receive financial aid. Therefore, women are more likely to receive financial aid. Women account for 55% of the total headcount but receive 58% of the awards (Perkins, Pitter, Howat, & Whitfield, 1999).

The NCES reported during the 2003-04 school year, forty-seven percent of all undergraduates enrolled in public two-year institutions received some type of financial aid. Forty percent received grants and twelve percent took out student loans. A recent trend across the years is that students are borrowing more regardless of their sex, race/ethnicity, or family income (U.S. Department of Education, 2005). This information initially concerns economists due to the increase in finances these students will owe; however, a study shows that due to lower interest rates, higher salaries, and possibly greater use of alternative repayment, options resulted in similar debts across the years (Statistics, 2004).

African American students are more likely to accumulate more debt while attending college, primarily through student loans. This debt may reflect a difference in the opportunity costs to these students because they are forced to borrow more money than Caucasian students. Considering loans are more accessible to African Americans, this does allow them to stay in school longer. However, similar findings between the two races are that both African Americans and Whites respond negatively to increases in net costs as well as negatively to increases in tuition. Surprisingly, these results of their study found that financial considerations appear to be minor in importance when considering retention (Wetzel et.al., 1999).

McPherson and Morton's significant finding is the differences in social class related to effects in net cost. As one would expect, white students from low-income families are influenced negatively due to increases in net cost of attendance. Then, a different image is portrayed when we consider the behavior of more affluent students who are not influenced by an increase in net cost. Students who are considered middle-class did not show a steady effect on enrollment.

The age of the student also impacts his persistence. Older students are more likely than traditional age students to be working, married, caring for children, and less engaged in the college which negatively impacts their ability to retain. Their financial obligations are more significant than a young college student (Choy & Premo, 1995).

The NCES found associate degrees conferred during the 2001-02 year based on gender and race. Whites were more likely to earn a degree than any other race. The distribution is 70.2% Whites, 11.3% Black, 10.1% Hispanic, 5.2% Asian/Pacific Islander,

1.1% American Indian/Alaska Native, and 2.1% Non-resident. More women (357,024) than men (238,109) earned associate degrees during the 2001-02 year (Statistics, 2007a).

As the research shows, there are many variables of student retention along with student placement. The importance of student retention has been documented for decades because of the importance it imparts on the institution and the individual. However, there is a lack of research on the impact student retention has on human capital in relation to the community college student that earns an A.A.S. degree. It is obvious and repeatedly documented that education has a significant positive impact on human capital, but to what degree and to what limits is it feasible for an individual to return to college after the young traditional age of eighteen. This study will dissect the best practices of retention and placement in Mississippi community and junior colleges along with determining how successful each community college is at retaining and placing its Associate of Applied Science students.

CHAPTER III

METHODOLOGY

According to the literature, earning an Associate of Applied Science (A.A.S.) degree from a community college can have a positive impact on both the individual and the local community. There is evidence to support the fact that continuing in a two year career or technical A.A.S. program and being placed in the related field of work improves a person's earnings and human capital. Although there are numerous research studies on community college students, little has been done on A.A.S. students as a separate group, especially in Mississippi.

This current study attempts to identify effective practices of retention and placement for students in Associate of Applied Science programs in fifteen Mississippi community and junior colleges. The purpose of this study was to determine the retention and placement rates at each community college in the state for their A.A.S. programs and gather information from each college to determine what they are doing to help retain and place their students. The study examines retention and placement rates for each A.A.S. program at the 15 community and junior colleges in Mississippi and investigates the efforts that are being made to retain and place their students. This chapter will describe the research methodology used in the study.

This study used a mixed-methods research design to identify effective practices of retention and placement in Mississippi Community Colleges. This research involved

quantitative methods of data collection along with a qualitative survey. “Mixed method research is used to examine multiple approaches to decrease the risk of biases” (Creswell, 2003, p. 15).

The study was guided by the following research questions:

- 1) What is the total number of Associate of Applied Science graduates at Mississippi Community Colleges?
- 2) What are the various demographic and education variables that influence graduation rates for Associate of Applied Science students in Mississippi?
- 3) What are the placement rates of the Associate of Applied Science programs at Mississippi Community Colleges?
- 4) What are the retention methods in Associate of Applied Science programs in Mississippi Community Colleges for?
- 5) What are the placement methods for Associate of Applied Science students in Mississippi Community Colleges?

These research questions were developed from retention theories from Tinto and Astin. Their theories involve focus on the student and his relationship with the college. Tinto and Astin believe that retention is based on how well the institution develops a relationship with the student once he begins at the college (Astin, 1993; Tinto, 1993). There is also clear evidence that illustrates the benefit of being placed in a graduate's field of work after graduation. Since each college is given the responsibility for helping its students find a job, it is beneficial to know which institution is doing well with placement and what its strategies are. This best methods identification will allow other

institutions to adopt new strategies if they are in need of placing more students in their related field of work in each of their respective communities.

Data Sources

Three means of data sources were used for this research. One involved existing data that contained the number of students retained to graduation in each of the A.A.S. programs at the 15 Mississippi Community and Junior colleges during the 2006-07 school year. Another form of existing data that was used included the number of those students that completed their A.A.S. degree and was positively placed in a position related to their program of study. The final form of data collection consisted of surveying administrators directly involved with the A.A.S programs at their community colleges to determine how each college retains and places its A.A.S. students.

The participants in this study included the population of students in an A.A.S. program at a Mississippi community and junior college during the 2006-07 school year. Retention was calculated using the number of individuals that graduated in each program. Placement was determined by using data from graduates that completed their programs during the 2006-07 school year. Secondary data consisting of graduation rates was collected from the Mississippi State Board for Community and Junior Colleges. The secondary data for placement was requested from each individual community and junior college.

The alternate sources of data involved in this study were the stakeholders at each of the 15 community and junior colleges involved with the A.A.S. programs. These individuals were full time employees that were directly involved with the A.A.S.

programs that are offered by their institutions. These administrators were asked to complete a questionnaire containing questions about their efforts to retain and place their A.A.S. students and the number of students that were positively placed in each of their A.A.S. programs.

Description of Instrument

In addition to the data gathered from the State Board for Community and Junior Colleges for the number of students retained, data was collected from the use of a questionnaire. The questionnaire included both qualitative and quantitative research methods. The instrument called for the collection of more qualitative data because the type and quality of strategies that are in place to help retain and place students is being investigated (Fraenkel & Wallen, 2006).

After a search of the literature, an instrument already in existence best fit this study. This study used the same instrument Scaggs (2004) used in her study. An adapted version of the questionnaire was used to include questions concerning placement. According to Scaggs the questionnaire was validated by being piloted at one Mississippi public community college. The instrument was given to the Dean of Students, the Dean of Academic Affairs, and the Director of Enrollment Management. Several modifications were made after administering this instrument for validation. The instrument, a five page questionnaire, was then used by Scaggs to gather data from three community colleges concerning their programs, services, and practices to retain Black male students. Scaggs has granted permission for the use of the instrument.

The instrument, originally named The Retention of Black Male Students at Mississippi Public Community and Junior Colleges Questionnaire, was designed to gather data on four main themes: (a) Student Development, (b) Services for At Risk Students, (c) Course Placement Testing and Regulations, and (d) Extracurricular Activities. In the original study, participants were asked to report the services available at their campuses and the efficiency of these programs.

For the purpose of the current study, the name of the instrument is The Retention and Placement of A.A.S. students at Mississippi Public Community and Junior Colleges Questionnaire. The instrument included questions related to the opportunities that students have outside the classroom including extracurricular activities, student involvement, tutoring, work study, access to a career center, new student orientation, non-traditional orientation, counseling services, and identifying at-risk students. The questionnaire also asked two open ended questions related to gathering specific information on what each institution has found beneficial for retaining and placing their A.A.S. students.

Data Collection

The current research was conducted in two phases and was guided by the following five research questions:

1. What is the total number of Associate of Applied Science graduates at Mississippi Community Colleges?
2. What is the various demographic and education variables that influence graduation rates for Associate of Applied Science students in Mississippi?

3. What are the placement rates of the Associate of Applied Science programs at Mississippi Community Colleges?
4. What are the retention methods in Associate of Applied Science programs in Mississippi Community Colleges?
5. What are the placement methods for Associate of Applied Science students in Mississippi Community Colleges?

The researcher initially met with the community and junior college Presidents to ask for their support to collect the needed data from the State Board for Community and Junior Colleges; and also for approval to contact each of their institutions for placement data. Secondary data including the number of graduates in each program and non-identifiable demographics at each institution in Mississippi was collected from the State Board. The demographics collected included age, gender, ethnicity, GPA, and ACT. *The Retention and Placement of A.A.S. Students at Mississippi Public Community and Junior Colleges Questionnaire* was mailed to each college's Dean of Career and Technical Instruction. The questionnaire also requested the number of 2007 graduates that was positively placed in each of their A.A.S. programs. Fifteen individuals that were identified by the researcher and the State Board for Community and Junior Colleges as being directly related to the A.A.S. programs at their respective institutions were mailed a copy of the questionnaire. Once the first information had been sent, two weeks later a follow up was sent to the participants that had not returned the questionnaire to confirm that they actually received it, and remind them of the survey, and encourage their participation in this research.

The first page of the survey included a letter of consent that identified the researcher, explained the study, and assured the respondent of anonymity and confidentiality.

Data Analysis

The purposes of this mixed-methods study were to identify practices in place for retaining and placing Associate of Applied Science students in fifteen Mississippi community and junior colleges. Secondary data collection of retention rates were gathered and analyzed based on the number of graduates per program at each institution. The collection of existing data was obtained from the State Board for Community and Junior Colleges. This secondary data was used to answer the first research question by allowing the researcher to determine the numbers of students that completed the A.A.S degree within each program from which responses were obtained at every community and junior college in Mississippi. Once graduation rates were determined, the institutions and their number of A.A.S. graduates were shown.

Research question two was answered using secondary non-identifiable data to determine if there is a significant difference between demographical information for Mississippi's A.A.S. programs.

Research question number three was answered using secondary data received from each of the fifteen community and junior colleges in Mississippi that responded to the survey. Every college reports its yearly placement rates for the Perkins Act so the researcher asked for this information from each college for all of their A.A.S. programs. The placement rates are listed in the findings of this study.

The two remaining research questions are answered based on the qualitative data collected using a questionnaire. The Retention and Placement of A.A.S. students at Mississippi Public Community and Junior Colleges Questionnaire was sent to an administrator at each of the fifteen community colleges to gather information on retention and placement for each of their Associate of Applied Science programs along with questions pertaining to their local institutions. This analysis allowed for the researcher to determine what efforts are being made at each of the fifteen community and junior colleges in Mississippi to retain and place their A.A.S. students. This study is predominately quantitative with nested qualitative survey data being collected.

The study is guided by the following five research questions:

1. What is the total number of Associate of Applied Science graduates at Mississippi Community Colleges?
2. What are the various demographic and education variables that influence graduation rates for Associate of Applied Science students in Mississippi?
3. What are the placement rates of the Associate of Applied Science programs at Mississippi Community Colleges?
4. What are the retention methods in Associate of Applied Science programs in Mississippi Community Colleges?
5. What are the placement methods for Associate of Applied Science students in Mississippi Community Colleges?

CHAPTER IV

ANALYSES OF DATA

This chapter briefly reviews the purpose of the study, discusses the obtained data, and discusses the results of the analyses. The results are presented separately for each research question, and tables are used to display the findings.

The purpose of this study was to determine the graduation totals and placement rates for Associate of Applied Science students from each community and junior college in Mississippi. The practices for retaining and then placing Associate of Applied Science students in jobs were determined. The methods used to retain and place these students were studied using the instrument described in Chapter Three and shown in Appendix E. The sample used in this study were Associate of Arts students who graduated in the 2006-07 school year from all fifteen community and junior colleges. The efforts to help them stay in their programs until graduation and then be positively placed in their prospective fields or work is reported.

This chapter answers the following five research questions that guided this study.

Question 1: What is the total number of Associate of Applied Science graduates at Mississippi Community Colleges?

Question 2: What are the various demographic and education variables that influence graduation rates for Associate of Applied Science students in Mississippi?

Question 3: What are the placement rates of the Associate of Applied Science programs at Mississippi Community Colleges?

Question 4: What are the retention methods in Associate of Applied Science programs in Mississippi Community Colleges?

Question 5: What are the placement methods for Associate of Applied Science students in Mississippi Community Colleges?

Method Reviewed

The current study of retention and placement of Associate of Applied Science students at Mississippi public community and junior colleges allows for best practices to be identified. This research study was conducted in two different ways. Research question one and two were answered by collecting existing data from the State Board for Community and Junior Colleges. Data obtained for question one was organized in a way to identify the retention rate to graduation for each Mississippi community and junior college Associate of Applied Science program. Each college's Associate of Applied Science graduation rate was determined by obtaining the number of graduates for the 2006-07 school year.

The second part of the research was conducted by using a mail out questionnaire. An administrator of career and technical education at each of the fifteen community and junior colleges was sent a questionnaire that answers research questions three, four and five.

Research Question One

Research question one: What are the total number of Associate of Applied Science graduates at Mississippi Community Colleges?

In order to determine the graduation totals for Associate of Applied Science students in each program at all fifteen community and junior colleges in Mississippi, data was obtained from the State Board for Community and Junior Colleges. Once the data was obtained, it was analyzed to determine which college displayed the highest number of students that retained to graduation.

Graduation totals of Associate of Applied Science students for the 2006-07 cohort are listed in Table 4.1. The Mississippi community and junior colleges are identified using randomly assigned markers to preserve anonymity. Markers ranged from A to O.

The total number of graduates for all Associate of Applied Science students at Mississippi's community and junior colleges for the 2006-07 school year was 3504. The average number of graduates for the fifteen community and junior colleges is 233.

Table 4.1

Total Number of A.A.S. Graduates for Mississippi Community and Junior Colleges

COLLEGE	NUMBER OF A.A.S. GRADUATES
A	228
B	48
C	123
D	216
E	291
F	186
G	544
H	133
I	420
J	159
K	232
L	269
M	131
N	279
O	245

The fifteen Mississippi community and junior colleges listed in Table 4.1 are in random order. The average number of students who graduated with the Associate of Applied Science degree at all the community and junior colleges for 2006-07 was 233.

There is a 496 point difference between the highest number of graduates (544) and lowest number of graduates (48). These differences can be due to the difference in enrollment based on the location of the college.

Research Question Two

Research question two: What are the various demographic and education variables that influence graduation rates for Associate of Applied Science students in Mississippi community and junior college for 2006-07?

Data for question two was obtained from the State Board for Community and Junior Colleges. Non-identifiable demographic data was obtained for each of the 15 community and junior colleges in Mississippi, and the statistics were analyzed based on individual colleges.

Age

Table 4.2 depicts the descriptive statistics for age of students that graduated in the 2006-07 school year. The table shows the five age ranges for each individual community and junior college. Data for the graduates' ages was analyzed to determine if there was a difference among age groups and retention to graduation. The overall mean age for all colleges was 28, the median age was 25, and the modal age was 22. For the total of 3504 graduates, the majority of graduates (N=2211) were in the 21-30 age range. This group comprised 63% of the graduates. Another age group of interest were those 51 years and older with 2% of the graduates falling in that range. The youngest graduate was 19 and the oldest graduate was 62.

Table 4.2
Descriptive Statistics by Age of A.A.S. graduates

COLLEGE	≤20	21-30	31-40	41-50	51≥
A	13	154	40	18	3
B	2	21	17	7	1
C	13	82	15	8	5
D	13	149	32	15	7
E	24	165	60	36	6
F	26	126	25	6	3
G	11	329	127	62	15
H	9	86	19	11	8
I	16	241	98	50	15
J	15	100	31	10	2
K	5	159	37	23	8
L	11	194	46	15	3
M	12	74	30	12	3
N	4	176	70	25	4
O	16	155	50	21	3
Total Count	190	2211	697	319	86
Percentage	5%	63%	20%	9%	2%

Gender

Table 4.3 shows numbers of male and female graduates in 2006-07 from the fifteen community and junior colleges in Mississippi. There were 1018 males and 2411 females in the combined graduating classes. Seventy percent of the A.A.S. graduates were female and thirty percent were male.

Table 4.3

Descriptive Statistics of Graduates based on Gender

COLLEGE	MALE	FEMALE
A	90	136
B	11	36
C	60	62
D	56	159
E	79	153
F	62	123
G	139	404
H	48	84
I	107	311
J	54	104
K	81	150
L	75	193
M	37	93
N	64	214
O	55	189
Total Count	1018	2411
Percentage	30%	70%

Ethnicity

Table 4.4 shows that Whites (N=2329) accounted for 66% of the population of graduates in A.A.S. programs. The IPEDS Classifications CODE included seven identifiable ethnic groups. Black, non-Hispanic (N=1045) was the second highest with 30%, American Indian or Alaskan Native was .5%, Asian or Pacific Islander was .8%, Hispanic was .5%, and race/ethnicity not reported was 1.9%. Sixty-five graduates' ethnicity was not reported. Nonresident Alien was a classification but there were no graduates in that group.

GPA

Grade Point Average (GPA) ranged from 1.13 to 4.00 on a four point scale for this study. Data represents cumulative GPA that was reported at time of graduation. Table 4.5 below shows five GPA ranges for graduates. GPA equal to or less than 2.49 (N=446) made up 13% of grade point averages; 2.50-2.99 (N=1126) made up 32%; grades 3.00-3.49 (N=1275) 36%; grades 3.50-3.99 (N=626) 18%; and a GPA of 4.00 (N=30) made up only .86%. More graduates had a GPA between 3.00 and 3.49. The average GPA was 2.97, the most frequent GPA was 3.0, and the median GPA was 3.0.

Table 4.4

Descriptive Statistics of Graduates based on Ethnicity

COLLEGE	BLACK	AMERICAN INDIAN	ASIAN	HISPANIC	WHITE	NOT REPORTED
A	54	0	0	1	172	1
B	45	0	0	0	2	0
C	58	1	0	0	64	0
D	27	0	0	1	185	3
E	54	0	2	1	230	4
F	55	0	1	0	130	0
G	228	3	4	5	303	1
H	44	1	0	1	87	0
I	77	0	14	6	280	43
J	64	5	0	2	88	0
K	71	0	3	0	158	0
L	52	2	3	0	210	2
M	53	0	0	1	77	0
N	83	4	2	1	181	8
O	80	0	0	0	162	3
Total	1045	16	29	19	2329	65
Percentage	30%	.5%	.8%	.5%	66%	1.9%

Table 4.5

Descriptive Statistics of Graduates based on GPA

COLLEGE	2.49≤	2.50-2.99	3.0-3.49	3.50-3.99	4.0
A	27	85	73	40	3
B	10	22	15	1	0
C	31	35	38	18	0
D	23	57	95	40	1
E	20	93	119	58	1
F	16	57	72	39	2
G	87	155	186	107	9
H	20	50	43	19	1
I	44	125	171	77	3
J	27	66	47	18	1
K	52	85	68	27	0
L	17	57	128	64	3
M	29	59	28	13	2
N	14	110	109	45	1
O	29	70	83	60	3
Total Count	446	1126	1275	626	30
Percentage	13%	32%	36%	18%	.86%

ACT scores

ACT scores ranged from 2 to 31 in this study. Table 4.6 below shows the different ACT score ranges. ACT's not recorded (N=506) accounted for 14% of the total graduates. ACT scores 1-10 (N=20) only consisted of .6% of the population, scores 11-15 (N=489) 14%, scores 16-20 (N=1628) 46%, scores 21-25 (N=766) 22% and 26 \geq (N=95) 3%.

Research Question Three

Research question number three: What are the placement rates of the Associate of Applied Science programs at Mississippi community and junior colleges? In order to answer research question number three, a request for data was mailed along with a questionnaire to each of the fifteen community and junior colleges in Mississippi. The request for data was sent to the vice president, dean or assistant dean that was directly related to the career and technical programs at each college. The request involved asking the individual to report the number of students that were positively placed from each of the college's Associate of Applied Science programs upon graduating. Of the fifteen requests that were mailed, eleven were returned. Of the eleven that were returned, responders provided data that varied from individual programs to total overall program percentages. The percentages in Table 4.7 display the data that was returned from each college. This depicts the overall percentage of students that were positively placed in a job related to the field they graduated in.

Table 4.6

Descriptive Statistics of ACT scores for A.A.S. Graduates

COLLEGE	NOT TAKEN	1-10	11-15	16-20	21-25	26\geq
A	6	0	43	117	53	9
B	14	1	17	15	1	0
C	24	1	32	48	12	6
D	11	0	22	108	66	9
E	53	2	30	103	94	9
F	9	0	38	88	44	7
G	105	6	59	240	120	14
H	6	0	26	75	25	1
I	133	3	43	157	73	11
J	18	3	33	80	22	3
K	39	0	23	110	58	2
L	28	2	24	143	62	10
M	25	0	28	51	25	2
N	35	0	21	154	63	6
O	0	2	50	139	48	6
Total Count	506	20	489	1628	766	95
Percentage	14%	.6%	14%	46%	22%	.3%

Table 4.7

Percentage of A.A.S. Graduates Placed in a Job

COLLEGE	PERCENTAGE
A	78%
B	Not Given
C	Not Given
D	97%
E	90%
F	79%
G	Not Given
H	74%
I	84%
J	88%
K	86%
L	98%
M	90%
N	91%
O	Not Given

Research questions four and five were answered by sending a questionnaire to each of the fifteen community and junior colleges in Mississippi. Contact information for each college was obtained from the State Board for Community and Junior Colleges. A questionnaire referred to as *The Retention and Placement of A.A.S. students at*

Mississippi Public Community and Junior Colleges Questionnaire was mailed to each Career and Technical Administrator at each college along with a cover letter and self addressed stamped envelope. Two weeks following the initial mailing, contact was made with each individual who had not returned the Questionnaire.

The instrument included questions related to the opportunities that students have outside the classroom including extracurricular activities, student involvement, tutoring, work study, access to a career center, new student orientation, non-traditional orientation, counseling services, and identifying at-risk students. The questionnaire also asked two open ended questions related to gathering specific information on what each institution has found beneficial for retaining and placing A.A.S. students.

This study used the same instrument Scaggs (2004) used in her study; but was adapted to meet the needs of this study by including questions about placement of graduates.

Table 4.8 shows the number of participants that returned the questionnaire. Of the fifteen community and junior colleges contacted, eleven questionnaires were returned, four questionnaires were not returned, and none were incomplete.

Table 4.8

Number of Administrators/Participants and Response to Questionnaire

VARIABLE	NUMBER	PERCENTAGE
Total number of community colleges contacted	15	-
Number of questionnaires returned	11	73
Number of questionnaires not returned	4	26
Number of incomplete questionnaires	0	-

The following is a list of colleges that completed and returned the questionnaire.

The markers, ranging from A to O, were randomly assigned to preserve anonymity.

- A
- D
- E
- F
- H
- I
- J
- K
- L
- M
- N

Table 4.9 reflects the administrative positions of the respondents. Of those completing the questionnaire, 54.6% were Deans of Career and Technical Instruction at their college. Two (18.2%) were Vice Presidents and two (18.2%) were directors. The other respondent was Assistant Dean representing 9% of the total respondents.

Table 4.9

Job Title of Respondents

VARIABLE	NUMBER	PERCENTAGE
Vice President	2	18.2
Dean	6	54.6
Assistant Dean	1	9
Director	2	18.2
Other	0	0
Total	11	100

Table 4.10 indicates the respondents level of awareness concerning student retention and placement for their Associate of Applied Science Students. Ten (91%) respondents reported that they are very aware of retention and placement for their students, one (9%) was somewhat aware; thus all were at least aware or somewhat aware.

Table 4.10

Level of Awareness of College's Retention and Placement for A.A.S. students

VARIABLE	NUMBER	PERCENTAGE
Very aware	10	91.0
Somewhat aware	1	9.0
Not aware	0	0

Table 4.11 reveals the concern that Mississippi community and junior colleges have for retention, in reference to graduation rates, along with placement. The respondents indicated whether these two items were of concern to them, the board of trustees, the administration, and others.

Table 4.11

Retention and Placement a Matter of Concern at the Institutions

VARIABLE	YES		NO		NO RESPONSE
	<i>#</i>	<i>%</i>	<i>#</i>	<i>%</i>	
The Responder	11	100	0		
Board of Trustees	9	82	0		2
Administrators	11	100	0		
Others	9	82	1		1

Several responders included qualitative responses under “please specify others” and the results are as follows: four mentioned faculty/instructors, others listed were instructional planning committee, advisory committee members, and counselors.

Table 4.12 lists student development opportunities that each institution provides. The opportunities that were most prevalent at each of the colleges across the state as reported by the participants in the study were new student orientation, extracurricular activities, tutorial programs, career center, work study program, counseling services, and developmental classes. Each of these were reported as opportunities available at their community and junior college. Ninety-one percent reported offering basic skills testing, 54% reported orientation or freshman experience course, 54% also reported orientation for non-traditional students, and 73% reported identifying at risk students.

Table 4.13 displays that all 11 responders indicated that they feel their Associate of Applied Science students have ample access to extracurricular activities on their campuses. This percentage of 100 is particularly notable because extracurricular activities have been positively correlated with student success and satisfaction. The more involved students are during their educational pursuits, the more they will feel connected and comfortable with their institution and this in turn contributes to higher graduation rates.

Table 4.12
Institutional Opportunities for Students

VARIABLE	YES		NO		NO RESPONSE
	#	%	#	%	
Basic Skills Testing	10	91	0	-	1
New Student Orientation	11	100	0	-	
Extracurricular Activities	11	100	0	-	
Tutorial Programs	11	100	0	-	
Career Center	11	100	0	-	
Work Study Program	11	100	0	-	
Orientation or Freshman Experience Course	6	54	5	45	
Orientation for non- traditional students	6	54	5	45	
Counseling Services	11	100	0	-	
Identification of At Risk Students	8	73	2	18	1
Developmental Classes	11	100	0	-	

Table 4.13

Ample Access to Extracurricular Activities

	YES	NO
Ample access	11	0

Administrators were asked how important it is for the community and junior college to place Associate of Applied Science students in their field after graduation. The following table indicates that ten of the responders felt the task was very important.

Table 4.14

Importance of Placing A.A.S. Students in Their Field of Study

VARIABLE	NUMBER	PERCENTAGE
Not important	0	-
Of little importance	0	-
Important	0	-
Somewhat important	0	-
Very important	10	91
No Response	1	9

Many instructors spend a significant amount of time working to place each of their graduates. Each administrator was asked, based on his knowledge, how much time

Associate of Applied Science instructors spent helping their graduates find jobs related to their field of study. The most frequent response, a lot, was worth noting (64%).

Table 4.15

Amount of Time the A.A.S. Instructors Spend Helping Graduates Find a Job

VARIABLE	NUMBER	PERCENTAGE
None at all	0	-
Very little	0	-
Some	1	9
A lot	7	64
All the time	2	18
No Response	1	9

Research Question Four

Research question number four was: What are the retention methods in Associate of Applied Science programs in Mississippi Community Colleges? To answer this research question, data was obtained and analyzed from the questionnaire that was sent to the fifteen community and junior colleges in Mississippi. Of the fifteen, eleven were returned and were usable for this study. To determine the retention methods for graduation, the answers to the questionnaire which have been shown successful, were analyzed.

All but one responder reported that they were very aware of their college's student retention and placement for their A.A.S. students. The responders included two Vice Presidents, six Dean of Career and Technical Instruction, one Assistant Dean, and two Directors of Career and Technical Instruction. The one responder that did not indicate he was very aware, responded that he was somewhat aware of the college's retention and placement for A.A.S. students. Overall, the improvement in graduation rates is a matter of concern to the institution, administration, and faculty. This is a positive finding to learn that the task at hand is of concern for the major stakeholders at the college.

Student development was surveyed by determining what each institution offers to encourage students to retain to graduation. One hundred percent (N=11) of responders offer new student orientation, extracurricular activities, tutorial programs, career centers, work study programs, counseling services, and developmental classes. Ninety-one percent (N=10) offer basic skills testing, seventy-three percent (N=8) identify at-risk students, fifty-four percent (N=6) offer an orientation or freshman experience course, and fifty-four (N=6) offer an orientation for non-traditional students.

One-hundred percent of the responders reported that they feel their A.A.S. students have ample access to extracurricular activities on their campuses. This fact, along with the student development opportunities that each college offers, helps ensure that Mississippi community colleges are successful at helping their two-year students fulfill their educational goals by aiding them to graduation.

When asked if there is anything each college has found beneficial for helping their A.A.S. students stay in their program until graduation, five of the eleven responders gave qualitative answers. The following are the responses:

- Caring instructors
- Great counselors
- Advisory committees
- Club and student organization involvement by students
- Periodic social events for students
- Industry speakers and field trips
- Communication with students and getting to know them
- Contacting the students with excessive absences
- A retention plan has been developed where absences are tracked and students with a midterm grade less than 2.0 will meet with a counselor and be referred to the learning lab

Research Question Five

Research question five was: What are the placement methods for Associate of Applied Science students in Mississippi Community Colleges? To answer this research question, data was obtained and analyzed from the questionnaire that was sent to the fifteen community and junior colleges in Mississippi. Of the fifteen, eleven were returned and were usable for this study. To determine the methods of placement, the answers to the questionnaire which have been shown successful, were analyzed.

Each community college in Mississippi is expected to try to place as many of their A.A.S. graduates as possible in a job related to their field of study. This is a primary concern to many students as they pursue their education goal. Along with graduation, they benefit from the help of their instructors finding them a job. This requires extra work for instructors and faculty that are employed in the A.A.S. programs at community and junior colleges. As their students graduate, they are given the duty of placing them in jobs related to that program they have just completed. Overall, Mississippi community and junior colleges are very successful at doing this.

A best practice in place for this task is that ninety-one percent of the respondents reported that it is very important for their college to place the A.A.S. students in jobs related to their program. Only one respondent, nine percent, did not respond to this question. The respondents were also asked: how much time do your A.A.S. instructors spend helping graduates find jobs in their field. One responder (9%) reported some, two (18%) reported all the time, one (9%) did not respond, while most seven out of eleven (64%) reported a lot. It is important to note that in ten of the responses, the instructors do spend some amount of time working to help place their graduates.

When asked if there is anything each college has found beneficial for placing their A.A.S. students in their related fields, six responders gave qualitative answers. The following are the responses:

- Career fairs
- Job placement workshops
- Special instruction in resume writing and interviewing skills
- Faculty/business/industry relationships

- Use of advisory committees
- Instructor participation in local professional organizations
- Continuous contact with prior graduates
- The instructor is key... a good instructor makes the program
- Working with business and industry

Of the responses, the use of the advisory committees was mentioned twice. The above items have helped individual community and junior colleges in Mississippi place their students in jobs after graduation.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to identify retention strategies that are in place to aid Associate of Applied Science students to graduation. This research examined the number of A.A.S. students that are retained to graduation at each of the fifteen community and junior colleges in Mississippi and determined the number of them that were positively placed in their program area. The efforts that each community college is taking to ensure these students graduate are identified.

Associate of Applied Science degrees that the community and junior college offer in Mississippi vary depending on the individual needs of the community that each college serves. Each college offers a variety of A.A.S. degrees that students can complete in as little as two years. Community colleges are vital to the future of America and are linked to the success of the communities in which they serve. Vaughn (2000) wrote that one of the community college's missions is to provide services that lead to stronger, more vital communities. In an attempt to fulfill their mission and give Mississippi an opportunity to compete globally, the community colleges in the state offer programs and educate their local workforce (Ford, 2002).

The economic welfare of a community vastly depends on the business and industry it can attract and retain (Flora, et al., 2004). The availability of educated workers

is often the founding and continuous determining factor as to whether the community will prosper. In order for the community college to fulfill one of its missions of serving the community, it must know what positions are needed in its local area (Cohen & Brawer, 2003). As more employees are retiring and the Bureau of Labor Statistics predicts growth in technical and vocational jobs that require an associate degree, the community college is in an ideal situation to educate and place more students.

Educators are also being held to a higher standard of accountability with concerns for retention and placement due to the Perkins Act (Azari, 1996). The Carl D. Perkins Vocational Educational Act was passed by Congress to help increase the number of highly skilled workers due to a shortage. Educators must report their retention and placement rates to ensure that the federal money they have been given as a result of the Perkins Act is used in the appropriate way (Wilcox, 1991). Considering the importance of graduating and placing A.A.S. students in jobs, this study indicated how well Mississippi is doing at this task. To complete this study, the following method of data collection was completed. Three means of data sources were used for this study. One involved graduation totals and non-identifiable demographics of existing data for students in each of the A.A.S. programs at the fifteen Mississippi Community and Junior colleges that completed their degree in 2006-07. Another form of existing data was the number of those students who were positively placed in a position in which they majored. The final form of data collection involved contacting administrators directly involved with the A.A.S programs at their community colleges to determine how each college retains and places its A.A.S. students.

The participants in this study included the population of students that graduated in

an A.A.S. program at a Mississippi community and junior college. Retention was calculated by using the numbers of individuals that graduated in each program during the 2006-07 school year. Placement was determined by using data from graduates that completed their program in the same year. Secondary data for rates of retention was collected from the Mississippi State Board for Community and Junior Colleges. The secondary data for placement was collected from each individual community and junior college by requesting the data when the questionnaires were sent.

The alternate sources of data involved in this study were the stakeholders at each of the 15 community and junior colleges involved with the A.A.S. programs. These individuals were full time employees that were directly in contact with the A.A.S. programs that are offered by their institutions. These administrators were asked to complete a questionnaire containing questions about the number of students that are positively placed in each of their A.A.S. programs and their efforts to retain and place their A.A.S. students.

Conclusion

The purpose of this mixed-methods study was twofold. One was to determine the graduation totals and placement rates of Mississippi Associate of Applied Science programs during the 2006-07 school year, and the other was to discover best practices in place for retention and placement of Associate of Applied Science students in the fifteen Mississippi community and junior colleges. The first research question involved collecting secondary data of graduation rates and the data was analyzed based on the number of graduates per program at each institution. Once graduation rates were

determined, the institutions were listed randomly using markers A-O. The total number of A.A.S. graduates at Mississippi community and junior colleges' during 2006-07 was 3504.

Research question number two was answered using secondary non-identifiable data to determine if various demographic and education variables influence graduation rates for Mississippi's A.A.S. programs. The following demographics were considered: age, gender, ethnicity, GPA, and ACT scores. Analysis of the data for age showed that majority of graduates (N=2211) were in the 21-30 age bracket. This bracket consisted of 63% of graduates. Females consisted of 70% of the total graduates, and white was the most common race totaling 66% of all graduates. Another indicator for graduation was GPA; the most popular GPA range was 3.0-3.49 being 36%. The most common ACT range was 16-20 consisting of 46% of total graduates. These demographics show the most typical pattern of demographics for A.A.S. graduates in Mississippi.

Research question three investigated the placement rates of A.A.S. students upon graduation. Every college reports its yearly placement rates for the Perkins Act; therefore, the researcher requested this information from each college for all of their A.A.S. programs. Of the data that was returned, eleven community and junior colleges in Mississippi showed successful completion rates. All eleven were above the 74th percentage mark. Only three were in the seventies, three in the eighties, and the remaining four in the nineties. The top four colleges displayed placement rates of 98%, 97%, 91%, and 90%. The placement rates are listed in the findings of this study. This is evidence of how successful Mississippi community and junior colleges are at fulfilling one of their missions involving serving their community.

The two remaining research questions are answered based on the qualitative data collected using the questionnaire. The Retention and Placement of A.A.S. students at Mississippi Public Community and Junior Colleges Questionnaire was sent to an administrator at each of the fifteen community and junior colleges to gather information on placement for each of their Associate of Applied Science programs along with questions pertaining to their local institutions. This analysis allowed for the researcher to determine what efforts are being made at each of the fifteen community and junior colleges in Mississippi to retain and place their A.A.S. students.

Research question four investigated efforts within the state to retain students. One question on the questionnaire pertained to the student development opportunities that each institution provides. The opportunities that were most prevalent at each of the colleges across the state as reported by the participants in the study were: offering new student orientation, extracurricular activities, tutorial programs, career center, work study program, counseling services, and developmental classes. Each of these were reported as opportunities available at their community and junior college. Ninety-one percent reported that they offer basic skills testing, 54% reported orientation or freshman experience course, 54% also reported orientation for non-traditional students, and 73% reported identifying at risk students. All eleven responders indicated that they feel their Associate of Applied Science students have ample access to extracurricular activities on their campuses. The percentage of 100 is particularly notable because extracurricular activities have been positively correlated with student success and student satisfaction. The more involved students are during their educational pursuits, the more they will feel

connected and comfortable with their institution and this in turn contributes to higher graduation rates.

Qualitative answers were given when asked if they wanted to share what has been beneficial for retaining their A.A.S. students to graduation. Responders reported: caring instructors, great counselors, advisory committees, club and student organization involvement by students, periodic social events for students, industry speakers and field trips, communication with students and getting to know them, and contacting the students with excessive absences. One school reported that a retention plan had been developed where absences were tracked and students with a midterm grade less than 2.0 were required to meet with a counselor and were referred to the learning lab.

Research question number five involved determining methods for placing A.A.S. graduates in a job related to their program of study. Ninety-one percent of the responders felt it was a very important task to place these students in a job. Seven of the eleven responders (64%) said their A.A.S. instructors spend a lot of time helping these graduates find a job. One responder reported that their A.A.S. instructors spend some amount of time working on this task while two (18%) said they work on placing their students all the time.

Qualitative answers were given when asked if they wanted to share what has been beneficial for placing their A.A.S. students. Responders reported: career fairs, job placement workshops, special instruction in resume writing and interviewing skills, faculty/business/industry relationships, use of advisory committees, instructor participation in local professional organizations, continuous contact with prior graduates, the instructor is key... a good instructor makes the program, and working with business

and industry. The most common response was working with business and industry in the local community.

Recommendations

Resulting information will be helpful for Associate of Applied Science program planning at all community and junior colleges. The findings of best practices will be beneficial if all the student development opportunities are in place to be offered to the A.A.S. students.

The following recommendations are made based on the findings and conclusions reached in this study.

1. Due to a lack of studies exclusively including Associate of Applied Science students, this study focused solely on them. Future studies can be expanded to investigate other levels of education.
2. Based on the finding of this study to determine the extent of the success of Mississippi Community Colleges, future studies can include other states that offer Associate of Applied Science programs to determine their best practices of retention and placement. This study can be replicated at other venues in various states.
3. The population for this study was taken from one year. The researcher suggests that a multiple year study be conducted to determine if the results are consistent over time.

4. Program development can be geared toward the provision of increased student development opportunities, student and faculty interaction, and development of business and industry meetings.
5. A follow up study should involve contacting A.A.S. graduates to study their success and survey them to determine if the community and junior college they graduated from could have done more to help them.
6. A future study could involve contacting A.A.S. graduates that were not positively placed in a job after graduation and determine what the community and junior college could have done differently to help them.
7. A future study could involve contacting students that began an A.A.S. program and determine if the community and junior college could have done more to help them complete the degree.

REFERENCES

- Astin, A. (1993). *What matters in college*. San Francisco: Jossey Bass.
- American Vocational Association, A. (1990). *The AVA Guide to the Carl D. Perkins Vocational and Applied Technology Education Act of 1990*. (ERIC Document Reproduction Service No. ED324494)
- Azari, C. E. (1996). *Measuring student outcomes in postsecondary vocational education: Using Wage Record Data*. Community College Review, Vol. 24, No. 3, 37-51 (1996) DOI: 10.1177/009155219602400305
- Bailey, T., Alfonso, M., Calcagno, J. C., Jenkins, D. Kienzi, G., & Leinbach, T. (2004). *Improving Student Attainment in Community Colleges: Institutional Characteristics and Policies*. (ERIC Document Reproduction Service No. 484346)
- Bailey, T., Calcagno, J. C., Jenkins, D., Kienzl, G., & Leinbach, T., (2005). *The effects of institutional factors on the success of community college Students*: Community College Research Center, Teachers College, Columbia University. (ERIC Document Reproduction Service No. ED484345)
- Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis, with special reference to education* (3rd ed.). Chicago: University of Chicago Press.
- Braxton, J. M. (2003). *Persistence as an essential gateway to student success* (4th ed.). San Francisco: Jossey-Bass.
- Buzzell C. H. (1993). *Tech prep, special needs, and the Perkins Act*. *Journal for Vocational Special Needs Education*, 16(1), 4-5.
- Chickering, A. (1974). *Commuting versus resident students: Overcoming the educational inequities of living off campus*. San Francisco: Jossey Bass.
- Choy, S., & Premo, M. (1995). *Profile of older undergraduates, 1989-90*. Statistical Analysis Report. (ERIC Document Reproduction Service No. ED382122)
- Cohen, A., & Brawer, F. (2003). *The American community college* (4th ed.). San Francisco, California: Jossey-Bass.

- Community College Terms (n.d.). Retrieved August 20, 2008, from http://www.centralaz.edu/documents/ipr/CC_TERMS_2.pdf
- Coronado, H. C. (1996). *Texas employer perspectives and uses of the associate of applied science degree*. Texas Tech University.
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Crosby, O. (2002). Associate degree: Two years to a career or a jump start to a bachelor's degree. *Occupational Outlook Quarterly*, 46(4), 2-13.
- D'Amico, C., Judy, R., & Gipel, G. (1997). *Workforce 2020: Work and workers in the 21st century*. Indianapolis, IN: Hudson Institute.
- Federal Student Aid Handbook (2002). Student Eligibility, Volume 1. (ERIC Document Reproduction Service No. ED75534) Retrieved April 14, 2008.
- Flora, C., Flora, J., & Fey, S. (2004). *Rural communities: Legacy and change*. Boulder, CO: Westview Press.
- Ford, M. L. (2002). Community colleges- the center of the workforce development universe. *National*, 72(6), 32-35.
- Fraenkel, J. R., & Wallen, N. E. (2006). *How to design and evaluate research in education*. Boston: McGraw Hill.
- Friedman, T. L. (2005). *The world is flat*. New York: Farrar, Straus, and Giroux.
- Froomkin, J. (1983). *The crisis in higher education*. New York: Academy of Political Science.
- Gao, H. (2002). *Examining the length of time to completion at a Community College*. Paper presented at the Southern Association for Institutional Research.
- Hagedorn, L. S. How to define retention: A look at an old problem. *Transfer and retention of urban community college students project (TRUCCS)*. Retrieved March 15, 2007, from <http://www.usc.edu/dept/education/truccs/>
- Hansen, W. L. (1983). Impact of student financial aid on access. In J. Froomkin (Ed.), *The crisis in higher education*. New York: Academy of Political Science.
- Hull, D., & Grevelle, J. (1998). *Tech prep: The next generation*. Waco, TX: CORD Communications.

- Jacobson, L., LaLonde, R., & Sullivan, D.G. (2002). *Estimating the returns to community college schooling for displaced workers*. Chicago: Federal Reserve Bank of Chicago.
- Jacoby, B. (1992). What colleges should do for commuters. *Planning for Higher Education*, 20(3), 29-34.
- Koltai, L. (1984). *Redefining the associate degree*. Washington, DC: American Association of Community and Junior Colleges.
- Koos, L. (1970). *The junior college movement*. New York: AMS Press.
- Leslie, L. L., & Brinkman, P. T. (1988). *The economic value of higher education*. San Francisco: Jossey-Bass.
- Levitz, R., & Noel, L. (1980). *Attracting and retaining adult learners*. Iowa City, IO: ACT.
- Lynch, R. (2000). New directions for high school career and technical education in the 21st century. *ERIC clearinghouse on adult, career, and technical education (Information Series no. 384)*
- Martens, K., Lara, E., Cordova, J., & Harris, H. (1995). Community college students: Ever changing, ever new. In S.R. Helfgot & M. McGann Culp (Eds.), *promoting student success in the community college*. New directions for student services No. 69 (pp.5-15). San Francisco: Jossey-Bass.
- McPherson, M. S., & Morton, O. S. (1991). Does student aid affect college enrollment? New evidence on a persistent controversy. *The American Economic Review*, 81(1), 309-318.
- Mississippi State Board for Community and Junior Colleges (2007). Retrieved 10/03/07, from www.sbcjc.cc.ms.us
- Moncarz, R., & Crosby, O. (2005). Job outlook for people who don't have a bachelor's degree. *Occupational Outlook Quarterly*, winter 2004-2005. Retrieved January 25, 2007 from www.bls.gov/opub/ooq/ooqhome.
- Morse, S. (2004). *Smart communities: How citizens and local leaders can use strategic thinking to build a brighter future*. San Francisco, CA: Jossey-Bass.

- Ortman, J. (1995). *Commuter students in colleges and universities*. (ERIC Document Reproduction Service No. ED398779) Retrieved July 22, 2008, from ERIC database.
- Perkins, G., Pitter, G., Howat, C., & Whitfield, D. (1999). *Relationship of Financial Aid, Work and College Performance*. AIR 1999 Annual Forum Paper. (ERIC Document Reproduction Service No. ED433791) Retrieved April 22, 2008, from ERIC database.
- Retention 101- Why Students Leave (2007). Retrieved January 17, 2007 from http://www.studentretention.org/rtn101_stdntsleave.html
- Rojewski, J. (2002). *Preparing the workforce of tomorrow: a conceptual framework for career and technical education*. Columbus, OH: National Dissemination Center for Career and Technical Education.
- Scaggs, S. L. (2004). *The retention of black male students at Mississippi public community and junior colleges: Identifying best practices in rural Mississippi community colleges*. Dissertation Abstract International, 65 (2) 392. (UMI No. AAT 3120822).
- Statistics, N. C. F. E. (2004). Debt Burden of College Graduates. *National Center for Educational Statistics*. Retrieved October 3, 2007 from <http://nces.ed.gov/programs/coe/2004/sections5/indicator38.asp>
- Statistics, N. C. F. E. (2007a). Associate degrees conferred by degree-granting institutions. *Digest of Education Statistics*. Retrieved November 30, 2007 from <http://nces.gov/programs/digest/d03/tables/dt261.asp>
- Statistics, N. C. F. E. (2007b). *Digest of education statistics*. Retrieved November 3, 2007 from <http://nces.ed.gov/fastfacts/display.asp?id=76>
- St. John, E. P., & Starkey, J. B. (1995). An alternative to net price. *Journal of Higher Education*, 66(2) 156-186.
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). ERIC Document Reproduction Service No. ED371658) Retrieved March 9, 2008, from ERIC database.
- Tinto, V. (2004). *Student retention and graduation. Facing the truth, living with the consequences*. The (Occasional Paper 1). Washington, DC: The Pell Institution for the Study of Opportunity in Higher Education.

- U.S. Department of Education, N. C. F. E. S. (2005). 2003-04 National Postsecondary Student Aid Study (NPSAS:04) Undergraduate Financial Aid Estimates for 2003-04 by Type of Institution (NCES 2005-163).
- Vanderheyden, B., & North Carolina State Dept. of Community Colleges (1994, January 1). *Earnings of community college students before enrolling, [and] impact of community college program completion on median earnings, [and] first year earnings of public postsecondary education completers*. Research Briefs No. 1994-02, 1994-03, and 1994-05. (ERIC Document Reproduction Service No. ED375898).
- Vaughn, G. B. (2000). *The community college story* (2nd ed.). Washington, D.C.
- Wetzel, J. N., O'Toole, D., & Peterson, S. (1999). Factors affecting student retention probabilities: A case study. *Journal of Economics and Finance*, 23(1), 45-55.
- Wilcox, J. (1991). The Perkins Act at a glance. *Vocational Education Journal*, 66(2), 16-17.
- Windham, P., & Search, S. (1996). Demographics; Diversity in More Forms. Student Demographics, Now and the Future, Speeches/Conference Papers, 150.
- Witt, A., Wattenbarger, J., Gollattscheck, J., & Supiger, J. (1995). *America's community colleges, the first century*. Washington, DC: Community College Press.
- Young, J. B., & Ewing, J. M. (1978). *The Mississippi public junior college story: The first fifty years 1922-1972*. Jackson: University Press.
- Zwerling, S. (1980). Reducing attrition at two-year colleges. *Community College Review*, 8(2).

APPENDIX A

INSTITUTIONAL REVIEW BOARD APPROVAL LETTER



February 6, 2009

Janae Hagan
147 McComb Avenue
Saltillo, MS 38866

RE: IRB Study #09-017: The Best Practices for Retention and Placement of Associate of Applied Science Students at Mississippi Public Community and Junior Colleges

Dear Ms. Hagan:

The above referenced project was reviewed and approved via administrative review on 2/5/2009 in accordance with 45 CFR 46.101(b)(2) and 45 CFR 46.101(b)(4). Continuing review is not necessary for this project. However, any modification to the project must be reviewed and approved by the IRB prior to implementation. Any failure to adhere to the approved protocol could result in suspension or termination of your project. The IRB reserves the right, at anytime during the project period, to observe you and the additional researchers on this project.

Please note that the MSU IRB is in the process of seeking accreditation for our human subjects protection program. As a result of these efforts, you will likely notice many changes in the IRB's policies and procedures in the coming months. These changes will be posted online at <http://www.orc.msstate.edu/human/aahrpp.php>. The first of these changes is the implementation of an approval stamp for consent forms. The approval stamp will assist in ensuring the IRB approved version of the consent form is used in the actual conduct of research. You must use copies of the stamped consent form for obtaining consent from participants.

Please refer to your IRB number (#09-017) when contacting our office regarding this application.

Thank you for your cooperation and good luck to you in conducting this research project. If you have questions or concerns, please contact me at cwilliams@research.msstate.edu or call 325-5220.

Sincerely,

[For use with electronic submissions]

Christine Williams
IRB Administrator

cc: James Ed Davis

Office for Regulatory Compliance

P.O. Box 6223 • 70 Morgan Avenue • Mailstop 9563 • Mississippi State, MS 39762 • (662) 325-3294 • FAX (662) 325-8776

APPENDIX B
SBCJC PERMISSION LETTER



STATE BOARD FOR
COMMUNITY AND JUNIOR COLLEGES

January 29, 2009

Ms. Janae Hagan
147 McComb Ave
Saltillo, MS 38866

Dear Ms. Hagan:

I am writing to convey the community college presidents' support for your doctoral dissertation research at Mississippi State University. The State Board for Community and Junior Colleges will grant you permission to obtain non-identifiable data containing the number of May 2007 Associate of Applied Science graduates for every program at each of the fifteen community and junior colleges in Mississippi.

I know that you are aware of the necessity of protecting any identifiers and will report the results of the individual schools using anonymity.

This letter grants you permission to use this data in your dissertation. Thank you.

Sincerely,

A handwritten signature in cursive script that reads "Eric Clark".

Eric Clark
Executive Director

APPENDIX C

DR. SCAGGS PERMISSION LETTER

susan scaggs [susan.scaggs@mgccc.cc.ms.us]
Hagan, Janae F.
RE: Dissertation advice

Sat 7/12/2008 12:27 PM

Janae,

Thank you for your formal request to work with the survey instrument I used to collect data for my dissertation. I am more than happy for you to use part or all of the instrument in your own research.

I look forward to assisting you in any way possible as you work to reach your goal. Sls

APPENDIX D
INITIAL CONTACT LETTER

147 McComb Ave
Saltillo, MS 38866

Name
Specify Community College
Mailing Address
City, State, Zip

Dear Dr. Name:

I am a graduate student at Mississippi State University and I am working on my dissertation. I am very interested in the retention of Associate of Applied Science students and the number of them that are placed in their respective fields. As the economy evolves, retaining and placing these students is of importance in each of our communities.

I presented my research plan to the Community and Junior College Presidents at their meeting on January 28, 2009 and was given their approval. I am asking for your participation by completing the enclosed questionnaire concerning your A.A.S. students. Along with completing this questionnaire, please provide non-identifiable data on the number of students that are positively placed in each of your A.A.S. programs on each of your campuses. Please use the enclosed template as a guide for the placement information I am requesting. Return the survey and placement data in the enclosed self addressed stamped envelope or email to jfhagan@iccms.edu by February 13, 2009. While the survey does ask for your name and institution, no individuals will be identified in my dissertation or in any other publications. Please remember that the data that I am asking for in regards to placement should be stripped of the individual identifiers prior to being sent to me.

Your participation is entirely voluntary, of course, but greatly appreciated. Your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled, and you may discontinue your participation at any time without penalty or loss of benefits. The results of this insightful research will be made available to you upon request at the completion of the project.

Please feel free to contact me if you have questions or concerns about this project at 662-869-7709 or jfhagan@iccms.edu. Questions may also be posed to my dissertation advisor, Dr. Ed Davis, at 662-325-2281. For additional information regarding your rights as a research subject, please feel free to contact the MSU Regulatory Compliance Office at 662-325-3294.

Sincerely,

Janae Hagan
Doctoral Student
Mississippi State University

APPENDIX E
INSTRUMENT

The Retention and Placement of A.A.S. students
at Mississippi Public Community and Junior Colleges Questionnaire

Name: _____
Title: _____
Institution's Name _____
Phone Number: _____
Email _____

Please indicate your choice of answer or fill in your response.

- 1.) How would you describe your level of awareness of your college's student retention and placement for Associate of Applied Science students?
____ very aware ____ somewhat aware ____ not aware

- 2.) Is retention, meaning the improvement in graduation rates, a matter of concern to your institution? ____yes ____no
To the board of trustees? ____yes ____no
To the administration? ____yes ____no
To others? ____yes ____no

Please specify others

- 3.) Regarding student development, does your institution provide:

- a. Basic skills testing? ____yes ____no
- b. New student orientation? ____yes ____no
- c. Extracurricular activities? ____yes ____no
- d. Tutorial programs? ____yes ____no
- e. Career center? ____yes ____no
- f. Work study program? ____yes ____no
- g. Orientation or Freshman experience course? ____yes ____no
- h. Orientation for non-traditional students? ____yes ____no
- i. Counseling services? ____yes ____no
- j. Does your institution identify at risk students? ____yes ____no
- k. Developmental Classes? ____yes ____no

- 4.) Do you feel that your Associate of Applied Science students have ample access to extracurricular activities on your campus? ____yes ____no

- 5.) How important do you feel the community college's task is to place Associate of Applied Science students in their field of study?

____not important ____of little importance ____important ____somewhat important ____very important

- 6.) Based on your knowledge, how much time does your Associate of Applied Science instructors spend helping your graduates find jobs in their field?

____ none at all ____ very little ____some ____alot ____ all the time

- 7.) Is there anything else that you would like to share that your institution has found beneficial for retaining A.A.S.

students? _____

- 8.) Is there anything else that you would like to share that your institution has found beneficial for placing A.A.S. students in their related fields?

*Along with this questionnaire, please include the positive placement rates of each of your Associate